REMARKS

The present application includes claims 1-12 and 14-36. Claims 8, 19 and 26-36 are allowed. Claims 1-7, 9-12, 14-18 and 20-25 stand rejected. Claims 1, 3, 4, 11, 12, 17 and 25 are amended in response to the Examiner's rejections. Claim 2 is canceled.

Claim 1 is amended to recite a control subsystem capable of performing iso-center tracking to maintain a region of interest of the patient in an image area during tilt by simultaneously activating the lift, tilt, and longitudinal subsystems.

Claims 3 and 4 are amended to recite a tilt subsystem including one or more encoders and an electromagnetic brake configured to prevent the tilt subsystem from collapsing by sensing signals from the encoders.

Claim 11 is amended to recite preventing the patient positioning surface from collapsing by sensing signals from one or more encoders.

Claim 12 is amended to recite maintaining a region of interest of the patient by simultaneously activating a lift subsystem, a tilt subsystem, and a longitudinal subsystem.

Claim 17 is amended to recite the lift, tilt and longitudinal subsystems being capable of simultaneously activating to keep a region of interest in one or more of an image area and an iso-center during tilt.

Claim 25 is amended to recite a region of interest being maintained in an image area during tilt by tilting the table in an inverse kinematic relationship with simultaneous lifting and longitudinal movements of the table.

Claims 1-2, 5-6, 9-10, 17 and 20-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka et al. (U.S. Patent No. 6,094,760) in view of Uosaki et al. (U.S. Patent No. 5,210,893), and further in view of King et al. (U.S. Patent No. 4,435,862.)

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Kamata (U.S. Patent No. 5,237,600), and further in view of King.

Claims 7 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Uosaki and King, and further in view of Velazquez. (U.S. Patent No. 4,484,571.)

Claims 4 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Pattee (U.S. Patent No. 6,615,428), and further in view of King.

Claims 11, 15-16 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of King.

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of King, and further in view of Velazquez.

Rejections under 35 U.S.C. § 103(a)

The Applicant first turns to the rejection of claims 1-2, 5-6, 9-10, 17 and 20-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Uosaki, and further in view of King. Nonaka describes a bed system for radiation therapy. The bed system of Nonaka is capable of movement along a horizontal direction (or transverse direction referred to as the x-direction), a vertical direction (or a lifting direction referred to as the z-direction), and a longitudinal direction (or a back-and-forth direction referred to as the y-direction). (col. 8, lines 6-28.) The bed is also capable of relative isocentric rotation (or rotation about the z-direction), a rolling rotation (or rotation about the y-direction or axial center of a patient), and rotation about a pitching axis (or about the x-direction or perpendicular to the axial center of the patient). (col. 8, lines 30-43.)

During radiation therapy, a control system of the Nonaka system drives each axis of the bed so that a patient's diseased organ or part is located in a desired position. (col. 8, lines 66 – col. 9, line 17.) If a posture of the patient is not appropriate for therapy, the posture of the patient may be fine-tuned for therapy. (col. 9, lines 15-17.) In addition, the Nonaka system includes an acceleration sensor 26 that detects acceleration in the x-, y- or z-directions. (col. 13, lines 5-18.) When the sensor 26 detects an acceleration in any of the three directions, vibration signals opposite in direction and equal in amplitude

to the detected acceleration are added to the respective axis in order to hold the position of the diseased part of the patient stationary. (col. 13, lines 13-18.)

However, Nonaka does not disclose how the patient's posture is fine-tuned, other than merely stating that it may be fine-tuned when it is not appropriate for therapy. (col. 9, lines 15-17.) In addition, while Nonaka does describe correcting for acceleration along the x-, y- or z-axis to keep a bed stationary, (col. 13, lines 13-18), Nonaka does not teach or suggest maintaining a region of interest during the tilt of a table by simultaneous activation of lift, tilt and longitudinal subsystems.

Therefore, as Nonaka does not teach or suggest maintaining a region of interest in an image area during tilt of the bed, Nonaka is incapable of teaching or suggesting a control subsystem capable of performing iso-center tracking to maintain a region of interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 1. In addition, Nonaka is also incapable of teaching or suggesting a lift subsystem, tilt subsystem, and a longitudinal subsystem capable of being simultaneously activated to maintain a region of interest in an image area during tilt, as recited in claim 17.

Uosaki describes a couch apparatus for medicine. The couch apparatus is moveable along vertical and longitudinal axes by an elevating mechanism and a sliding mechanism, respectively. (col. 3, lines 43-59; col. 4, line 59 - col. 5, line 3.) However, Uosaki is incapable of remedying the shortcomings of Nonaka described above.

First, with regard to claim 1, Uosaki does not teach or suggest any tracking of a patient during movement of the couch apparatus, whether to maintain a region of interest in an image area or otherwise. Instead, Uosaki merely describes positioning a patient for an examination by moving a tabletop vertically and longitudinally. (col. 5, lines 7-25.) Uosaki does not teach or suggest any additional movement of the couch apparatus (such as iso-tracking) in order to maintain of any portion of a patient (such as a region of interest) in an image area. Consequently, Uosaki is incapable of teaching or suggesting a control subsystem that is capable of performing iso-center tracking of a region of interest in order to maintain the region of interest in an image area during tilt by simultaneously activating lift, tilt, and longitudinal subsystems, as recited in claim 1.

Next, with regard to claim 17, Uosaki does not teach or suggest any other motion of the couch apparatus other than a lifting motion and a longitudinal motion. (col. 3, lines 43-59; col. 4, line 59 - col. 5, line 3.) For example, Uosaki does not teach or suggest a tilt subsystem capable of tilting the couch apparatus. Therefore, Uosaki is incapable of teaching or suggesting a lift subsystem, a tilt subsystem and a longitudinal subsystem that are capable of being simultaneously activated in order to keep a region of interest in an image area during tilt, as recited in claim 17.

King describes a control arrangement and method for an adjustable bed. Through a system of arms, frame means, and motor means, the bed of King is capable of various positions and movements. For example, King describes lowering the vertical position of

the bed (col. 3, lines 51-66), tilting the bed into a Trendeleburg or reverse Trendeleburg position (col. 4, lines 1-29), tilting the head portion of the bed (col. 4, line 61 – col. 5, line 14), tilting the foot end of a thigh portion of the bed (in other words, tilting a middle portion of the bed by changing the elevation of the end of the middle portion closest to the foot end of the bed) (col. 5, lines 15-56), and movement of the foot portion of the bed (col. 5, lines 57-68).

King also describes an occupant control console 100. (col. 6, lines 21-54.) The occupant control console 100 allows an occupant of the bed to lift or lower the head portion of the bed and to lift or lower the foot portion of the bed (col. 6, lines 34-43.) King also describes a nurse station signal means 101. (col. 6, line 55 – col. 7, line 12.) The signal means 101 generates signals for lifting and lowering the head portion of the bed (col. 6, lines 59-62), for lifting and lowering the foot portion of the bed (col. 6, lines 65-66), and for raising and lowering the bed horizontally (col. 6, line 68 – col. 7, line 1). In addition, the signal means 101 is also capable of coordinated movement of the various portions of the bed in order to place the portions of the bed into: (1) a sitting arrangement or array, (2) a tilting position such as the drain or shock position, and (3) a horizontal arrangement from the sitting or tilting positions. (col. 7, lines 2-10.)

However, King does not remedy the shortcomings of Nonaka or Uosaki as described above. With regard to claim 1, neither of the control console 100 or the signal means 101 of King are capable of performing iso-center tracking to maintain a region of

interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 1. Instead, King describes limited movements of a bed caused by signals from console 100 or signal means 101. None of the movements described in King include iso-center tracking by simultaneously activating lift, tilt and longitudinal subsystems. Instead, the only coordinated or simultaneous movements caused by console 100 or signal means 101 include moving the head, thigh and foot portions of the bed in King into and out of a sitting position or a tilting position. (col. 7, lines 2-10.) Therefore, King does not teach or suggest limitations of at least claim 1.

With regard to claim 17, King does not teach or suggest simultaneous activation of lift, title and longitudinal subsystems in order to keep a region of interest in an image area during tilt, as recited in claim 17 and as described above. Once again, King merely describes coordinated or simultaneous movement of three portions of a bed in order to move and out of a sitting arrangement or a tilting arrangement. In short, King does not teach or suggest any simultaneous or coordinated movement of a bed in order to keep a region of interest in an image area during tilt. Therefore, King also does not teach or suggest limitations of at least claim 17.

As described above, none of Nonaka, Uosaki and King teach or suggest a control subsystem capable of performing iso-center tracking to maintain a region of interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal

subsystems, as recited in claim 1. In addition and also as described above, none of Nonaka, Uosaki and King teaches or suggests a capability of simultaneously activating lift, tilt and longitudinal subsystems in order to keep a region of interest in an image area during tilt, as recited in claim 17.

Moreover, to the extent that one would be motivated to combine Nonaka, Uosaki and/or King, any combination of these references also fails to teach or suggest limitations of at least claims 1 and 17. As described above, none of Nonaka, Uosaki and King teach or suggest a control subsystem capable of performing iso-center tracking to maintain a region of interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 1. In addition and also as described above, none of Nonaka, Uosaki and King teaches or suggests a capability of simultaneously activating lift, tilt and longitudinal subsystems in order to keep a region of interest in an image area during tilt, as recited in claim 17.

The present rejection includes claims 1-2, 5-6, 9-10, 17 and 20-24. Claim 2 is canceled. The Applicant respectfully submits that claims 1 and 17 each recite limitations not taught or suggested in Nonaka, Uosaki and King, taken individually or in combination. Claims 5-6, 9-10 and 20-24 depend from claims 1 and 17. Therefore, the Applicant respectfully submits that claims 1, 5-6, 9-10, 17 and 20-24 are allowable.

The Applicant next turns to the rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Kamata, and further in view of King. As described above, Nonaka describes a bed system for radiation therapy. Also as described above, the Nonaka system is capable of movement along horizontal, vertical, and longitudinal directions. (col. 8, lines 6-28.) In addition, the Nonaka system is capable of rotating a bed about each of the axes defining horizontal, vertical and longitudinal directions. (col. 8, lines 30-43.)

The system of Nonaka includes several brake mechanisms. (col. 5, lines 33-35; col. 6, lines 7-10, 21-22, 42-51, col. 6, line 63 – col. 7, line 3; col. 10, lines 54-67; col. 11, lines 35-39, 48-51; col. 12, lines 25-26, 30-33.) The brake mechanisms are provided between any of the desired objects in the hinge stand, the bed pedestal, the bed platform, the Y-axis slide table, the lift table, and the base and supporting sections. (col. 6, lines 7-10.) The only types of brakes disclosed by Nonaka are "brake mechanisms by friction and fitting." (col. 6, lines 21-22; col. 6, line 63 – col. 7, line 3; *see also* col. 10, lines 54-67.) The brakes in Nonaka may be applied to portions supporting the bed for emergency situations such as an earthquake. (col. 5, lines 33-35.)

While Nonaka does describe several brake mechanisms and their possible locations in the system, Nonaka does not teach or suggest a tilt subsystem that includes one or more encoders and an electromagnetic ("EM") brake that is configured to prevent

the tilt subsystem from collapsing by sensing signals from the encoders, as recited in claim 3.

Nonaka does describe a rotary encoder and/or brake for each of the rotating axes of the bed. (col. 12, lines 3-33.) However, Nonaka does not teach or suggest a brake configured to prevent the rotation system from collapsing by sensing signals from one or more encoders. Nonaka merely describes the use of encoders to (1) detect a relative rotation angle around an axis and (2) generate a feedback control signal. (col. 12, lines 3-33.) Nonaka does not teach or suggest any encoder providing a signal to a brake so that the brake can prevent a rotation subsystem from collapsing. In short, assuming for the sake of argument that one or more of the rotation systems of Nonaka constitutes a tilt subsystem, Nonaka does not teach or suggest a tilt subsystem including one or more encoders and an EM brake configured to prevent the tilt subsystem from collapsing by sensing signals from the encoders, as recited in claim 3.

In addition, Nonaka does not teach or suggest the use of an EM brake. The only type of brake disclosed by Nonaka is a "brake mechanism[ ] by friction and fitting." (col. 6, lines 21-22; col. 6, line 63 – col. 7, line 3; *see also* col. 10, lines 54-67.) Nonaka does not teach or suggest the use of any other type of brake. Therefore, Nonaka does not teach or suggest at least one other limitation of claim 3.

In conclusion, Nonaka does not teach or suggest limitations of claim 3. Nonaka does not teach or suggest (1) one or more encoders and a brake in a tilt subsystem, where

the brake is configured to prevent the tilt subsystem from collapsing by sensing signals from the brake or (2) the use of EM brakes, each of which is recited in claim 3.

Kamata describes a patient support table for radiographing with an x-ray camera. However, Kamata does not remedy the shortcomings of Nonaka described above. Kamata does not teach or suggest the use of any encoder(s) or brakes with the disclosed table. In addition, Kamata does not teach or suggest the use of an EM brake. In short, Kamata also does not teach or suggest at least these limitations of claim 3.

King describes a control arrangement and method for an adjustable bed, as described above. King does not remedy the shortcomings of Nonaka and Kamata, also as described above. King does not teach or suggest the use of any encoder(s) or brakes with the disclosed bed. King also does not teach or suggest the use of an EM brake. In short, King also does not teach or suggest at least these limitations of claim 3.

In addition, assuming for the sake of argument that one would be motivated to combine Nonaka, Kamata and King, the combination also fails to teach or suggest limitations of claim 3. As described above, none of Nonaka, Kamata and King, taken alone or in combination, teach or suggest (1) one or more encoders and a brake in a tilt subsystem, where the brake is configured to prevent the tilt subsystem from collapsing by sensing signals from the brake or (2) the use of EM brakes, each of which is recited in claim 3. Therefore, a combination of Nonaka, Kamata and King also fails to teach or suggest limitations of at least claim 3.

The present rejection includes claim 3. The Applicant respectfully submits that none of Nonaka, Kamata and King, taken alone or in combination, teaches or suggests limitations of claim 3. Therefore, claim 3 should be allowable.

The Applicant next turns to the rejection of claims 7 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Uosaki and King, and further in view of Velazquez. Claims 7 and 18 depend from claims 1 and 17 respectively. As described above, none of Nonaka, Uosaki and King, taken alone or in combination, teaches or suggests a control subsystem capable of performing iso-center tracking to maintain a region of interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 1. Also as described above, none of Nonaka, Uosaki and King, taken alone or in combination, teaches or suggests a capability of simultaneously activating lift, tilt and longitudinal subsystems in order to keep a region of interest in an image area during tilt, as recited in claim 17.

Velazquez describes a patient security and restraint system. However, Velazquez does not remedy the shortcomings of Nonaka, Uosaki and King, as described above. Velazquez also does not teach or suggest a control subsystem capable of performing iso-center tracking to maintain a region of interest of a patient in an image area during tilt by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 1. Velazquez also fails to teach or suggest a capability of simultaneously activating lift, tilt

and longitudinal subsystems in order to keep a region of interest in an image area during tilt, as recited in claim 17.

Assuming for the sake of argument that one would be motivated to combine Nonaka, Uosaki, King and Velazquez, the combination also fails to teach or suggest limitations of claims 1 and 17. As described above, each of Nonaka, Uosaki, King and Velazquez fail to teach or suggest limitations of at least claims 1 and 17. Therefore, a combination of these references also fails to teach or suggest limitations of claims 1 and 17.

The present rejection includes claims 7 and 18. The Applicant respectfully submits that none of Nonaka, Uosaki, King and Velazquez, taken alone or in combination, teaches or suggests limitations of claims 1 and 17. Claims 7 and 18 depend from claims 1 and 17, respectively. Therefore, the Applicant respectfully submits that claims 7 and 18 should be allowable.

The Applicant next turns to the rejection of claims 4 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Nonaka in view of Pattee, and further in view of King. As described above, Nonaka describes a bed system for radiation therapy. However, Nonaka does not teach or suggest a tilt subsystem that includes one or more encoders and an electromagnetic ("EM") brake that is configured to prevent the tilt subsystem from collapsing by sensing signals from the encoders, as recited in claim 4. Also as described

above, Nonaka does not teach or suggest maintaining a region of interest of a patient by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 12. Therefore, Nonaka does not teach or suggest limitations of at least claims 4 and 12.

Pattee describes a dual stage telescoping imaging table. However, Pattee is unavailable as a prior art reference under 35 U.S.C. § 103(a). Specifically, 35 U.S.C. § 103(c)(1) states:

> Subject matter developed by another person, which qualifies as prior art only under one or more subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

35 U.S.C. § 103(c)(1). Therefore, Pattee is unavailable as an invalidating reference under 35 U.S.C. § 103(a) if the subject matter of Pattee: (1) was developed by another person, (2) qualifies as prior art only under 35 U.S.C. § 102(e), (f), and (g), and (3) at the time the invention was made, the subject matter of Pattee and the claimed invention of pending claim 6 were owned by the same person or subject to an obligation of assignment to the same person.

As for the first requirement of 35 U.S.C. § 103(c)(1), the person listed as the inventor of the subject matter of Pattee is Jeffrey Wayne Pattee. The inventors of pending claims 4 and 12 are Muthuvelan Varadharajulu, Rajagopal Narayanasamy, Baskar Somasundaram, and Shaji Alakkat. Therefore, the subject matter of Pattee was

developed by a person different from the inventors of the invention claimed in claims 4 and 12.

As for the second requirement of 35 U.S.C. § 103(c)(1), Pattee is a reference that qualifies as prior art only under 35 U.S.C. § 102(c) as "(c) the invention [of Pattee] was described in . . . (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent . . . ." 35 U.S.C. § 103(e). Pattee was filed October 16, 2000, before the filing date of the present application. However, Pattee did not issue as a patent until September 9, 2003, after the filing date of the present patent application. Therefore, Pattee only qualifies as prior art under 35 U.S.C. § 102(e).

As for the final requirement of 35 U.S.C. § 103(c)(1), at the time the inventions claimed in claims 4 and 12 were made, both the subject matter of Pattee and the claimed invention of claims 4 and 12 were owned by General Electric Company. Pattee was assigned to GE Medical Systems Global Technology Company, LLC, of Waukesha, Wisconsin. The present application was also assigned to GE Medical Systems Global Technology Company, LLC, of Waukesha, Wisconsin, as shown by an assignment recorded on September 3, 2003, at Reel 013944, Frame 0661.

Thus, all three requirements of 35 U.S.C. § 103(c)(1) are met and Pattee is unavailable as a reference under 35 U.S.C. § 103(a).

King describes a control arrangement and method for an adjustable bed. However, King does not remedy the shortcomings of Nonaka. With regard to claim 4, King does not teach or suggest the use of any encoder(s) or brakes with the disclosed bed, as described above. King also does not teach or suggest the use of an EM brake. In short, King also does not teach or suggest limitations of claim 4.

With regard to claim 12, and as described above, King does not teach or suggest maintaining a region of interest of a patient by simultaneous activation of lift, title and longitudinal subsystems, as recited in claim 12. Therefore, King also does not teach or suggest limitations of at least claims 4 and 12.

Assuming for the sake of argument that one would be motivated to combine Nonaka and King, the combination would also fail to teach or suggest limitations of claims 4 and 12. As described above, neither Nonaka nor King, taken alone or in combination, teach or suggest a tilt subsystem that includes one or more encoders and an electromagnetic ("EM") brake that is configured to prevent the tilt subsystem from collapsing by sensing signals from the encoders, as recited in claim 4. In addition and also as described above, neither Nonaka nor King, taken alone or in combination, teach or suggest maintaining a region of interest of a patient by simultaneously activating lift, tilt and longitudinal subsystems, as recited in claim 12. Therefore, a combination of Nonaka and King also fails to teach or suggest limitations of claims 4 and 12.

The present rejection includes claims 4 and 12. The Applicant respectfully submits that Pattee is unavailable as a reference for a rejection under 35 U.S.C. § 103(a) and that neither Nonaka nor Pattee, taken alone or in combination, teach or suggest limitations of claims 4 and 12. Thus, claims 4 and 12 should be allowable.

The Applicant next turns to the rejection of claims 11, 15, 16 and 25 under 35 U.S.C. § 103(a) over Nonaka in view of King. With regard to claim 11, Nonaka describes a bed system capable of movement along horizontal, vertical, and longitudinal directions, as described above. (col. 8, lines 6-28.) Nonaka describes a rotary encoder and/or brake for each of the rotating axes of the bed. (col. 12, lines 3-33.)

However, Nonaka does not teach or suggest preventing a patient positioning surface from collapsing by sensing signals from one or more encoders, as recited in claim 11. Instead, Nonaka merely describes the use of encoders to (1) detect a relative rotation angle around an axis and (2) generate a feedback control signal. (col. 12, lines 3-33.) Neither of these uses is employed to prevent a patient surface from collapsing. Therefore, Nonaka does not teach or suggest limitations of claim 11.

King describes a control arrangement and method for an adjustable bed, as described above. However, King does not remedy the shortcomings of Nonaka. King does not teach or suggest preventing a patient positioning surface from collapsing by sensing signals from one or more encoders, as recited in claim 11. As King does not

teach or suggest the use of any encoders, King also does not teach or suggest limitations of claim 11.

In addition, assuming for the sake of argument that one would be motivated to combine Nonaka and King, the combination also fails to teach or suggest limitations of claim 11. As described above, neither Nonaka nor King, taken alone or in combination, teach or suggest preventing a patient positioning surface from collapsing by sensing signals from one or more encoders, as recited in claim 11. Therefore, a combination of Nonaka and King also fails to teach or suggest limitations of at least claim 11.

With regard to claim 25, Nonaka describes an acceleration sensor 26 that detects acceleration in the x-, y- or z-directions. (col. 13, lines 5-18.) When the sensor 26 detects an acceleration in any of the three directions, vibration signals opposite in direction and equal in amplitude to the detected acceleration are added to the respective axis in order to hold the position of the diseased part of the patient stationary. (col. 13, lines 13-18.)

However, while Nonaka does describe correcting for acceleration along the x-, y- or z-axis to keep a bed stationary, (col. 13, lines 13-18), Nonaka does not teach or suggest maintaining a patient's region of interest in an image area during tilt of the table by tilting the table in an inverse kinematic relationship with simultaneous lifting and longitudinal movements of the table, as recited in claim 25. In other words, Nonaka describes correcting for acceleration along a given axis or axes (by accelerating the table in an

opposite direction with equal amplitude). That is, the table of Nonaka is accelerated in one or more of three mutually perpendicular directions, without regard for the acceleration correction applied to any other axis. On the other hand, claim 25 recites tilting a table in an inverse kinematic relationship with simultaneous lifting and longitudinal movements of the table. Therefore, Nonaka does not teach or suggest limitations of claim 25.

King does not remedy the shortcomings of Nonaka. As described above, King describes a bed capable of various positions and movements. The occupant control console 100 and the nurse station signal means 101 of King permit a user to move the bed into various positions, including coordinated positions such as (1) a sitting arrangement or array, (2) a tilting position such as the drain or shock position, and (3) a horizontal arrangement from the sitting or tilting positions. (col. 6, lines 21-54; col. 6, line 55 – col. 7, line 12;)

However, King does not teach or suggest maintaining a patient's region of interest in an image area during tilt of the table by tilting the table in an inverse kinematic relationship with simultaneous lifting and longitudinal movements of the table, as recited in claim 25. Instead, King merely describes moving a bed into various coordinated positions, and does not teach or suggest any sort of relationship between the movements of the table (such as an inverse kinematic relationship) or the simultaneous tilting, lifting

or longitudinal movements of the table. Therefore, King also does not teach or suggest limitations of claim 25.

Moreover, assuming for the sake of argument that one would be motivated to combine Nonaka and King, the combination also fails to teach and suggest limitations of claim 25. As described above, neither Nonaka nor King, taken alone or in combination, teach or suggest maintaining a patient's region of interest in an image area during tilt of the table by tilting the table in an inverse kinematic relationship with simultaneous lifting and longitudinal movements of the table, as recited in claim 25.

The present rejection includes claims 11, 15, 16 and 25. The Applicant respectfully submits that neither Nonaka nor King, taken alone or in combination, teach or suggest limitations of claims 11 and 25. Claims 15 and 16 depend from claim 11. Therefore, claims 11, 15, 16 and 25 should be allowable.

The Applicant next turns to the rejection of claim 14 under 35 U.S.C. § 103(a) over Nonaka in view of King, and further in view of Velazquez. Claim 14 depends from claim 11. As described above, neither Nonaka nor King, taken alone or in combination, teach or suggest limitations of claim 11.

As described above, Velazquez describes a patient security and restraint system. However, Velazquez does not remedy the shortcomings of Nonaka and King. Velazquez does not teach or suggest the use of any encoders. Therefore, Velazquez is incapable of

teaching or suggesting preventing a patient positioning surface from collapsing by sensing signals from one or more encoders, as recited in claim 11.

Moreover, assuming for the sake of argument that one would be motivated to combine Nonaka, King and/or Velazquez, a combination would also fail to teach or suggest limitations of claim 11. As described above, none of Nonaka, King and Velazquez, taken alone or in combination, teaches or suggests preventing a patient positioning surface from collapsing by sensing signals from one or more encoders, as recited in claim 11.

The present rejection includes claim 14. The Applicant respectfully submits that none of Nonaka, King and Velazquez, taken alone or in combination, teaches or suggests limitations of claim 11. Claim 14 depends from claim 11. Therefore, claim 14 should be allowable.

Therefore, the Applicant respectfully submits that the claims of the present application should be allowable over the prior art.

CONCLUSION

The Applicant respectfully submits that the claims of the present invention should be in condition for allowance. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 07-0845.

Respectfully submitted,

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